

Design Portfolio Part-2



Software Engineering | Batch 2021

Sustainable Design (SET111)
Semester 3, 2022-23

Assessment Task – Design Portfolio Part 2

Submitted By: Kanishk Jain

Roll No: 2110994767

Submitted To Gurdyal Singh

Table of Contents

Portfolio Item 5 – Information sketches.....
Portfolio Item 6 – 3D Generated Models.....
Portfolio Item 7 – 2D Technical Drawings.....
Portfolio Item 8– 3D Rendered Images.....
Portfolio Item 9 – Infographic.....

Task 5: Information sketches:

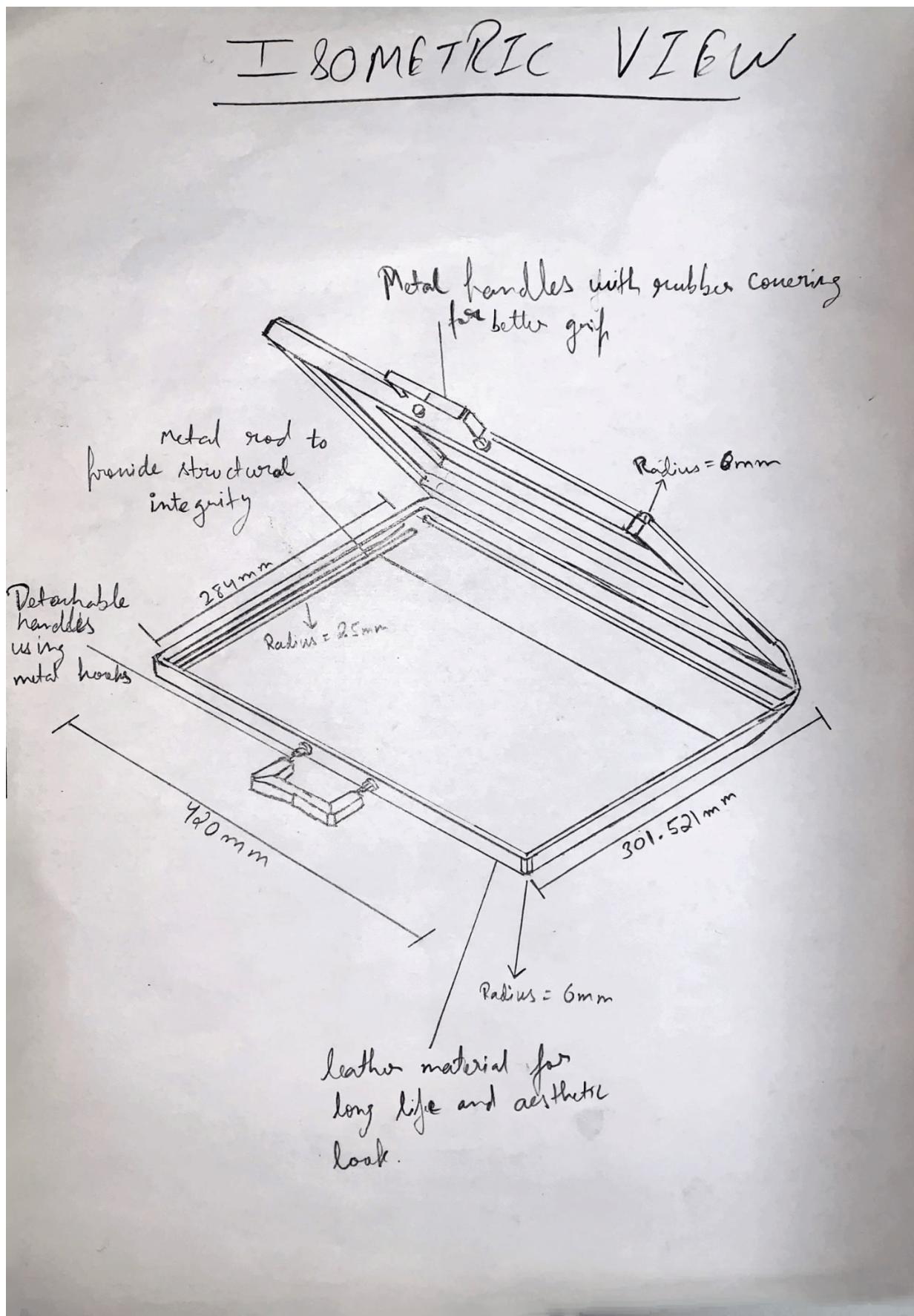


Figure 1: Isometric View had drawn sketch

TOP VIEW

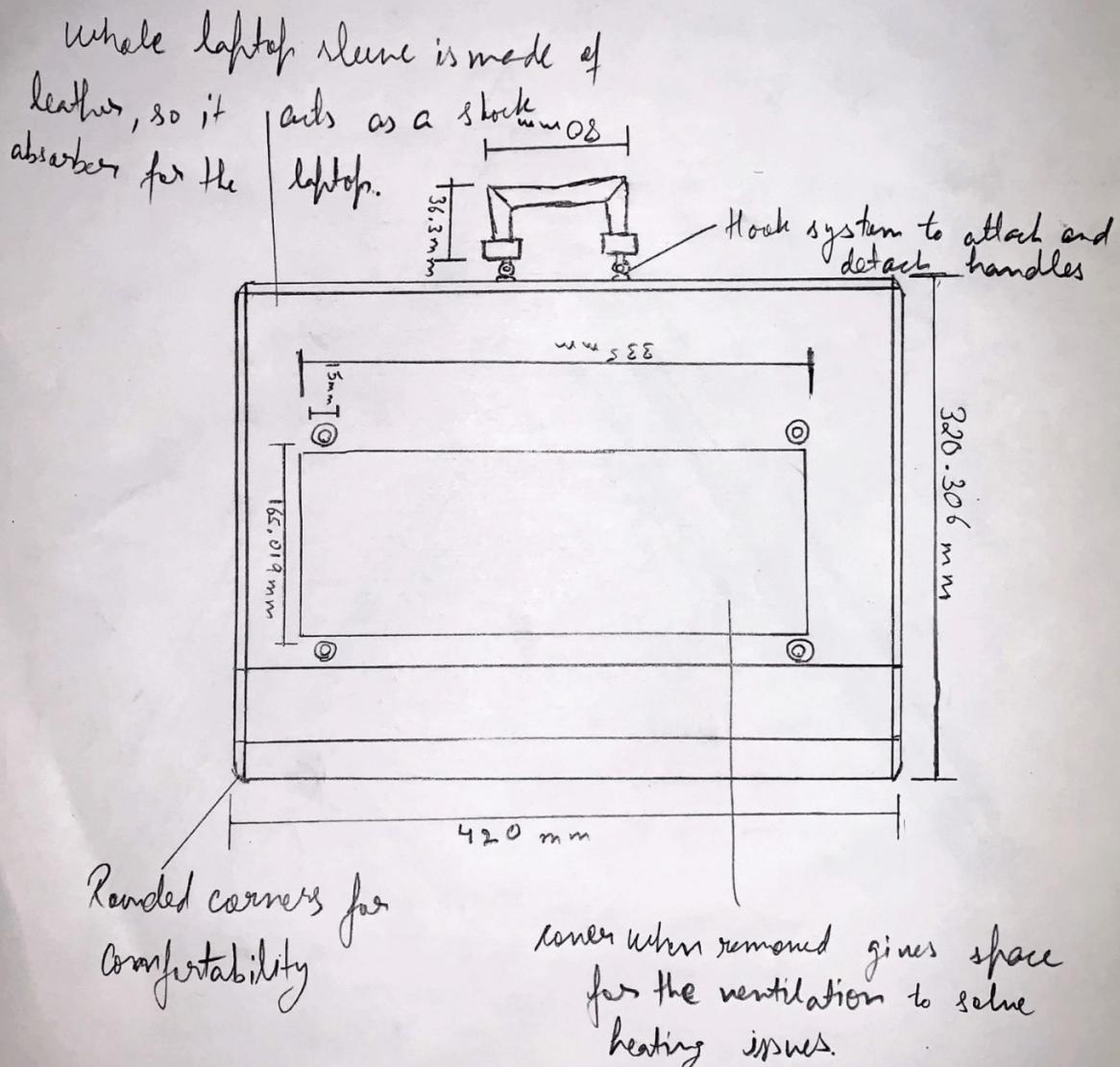


Figure 2: Front View sketch

SIDE VIEW

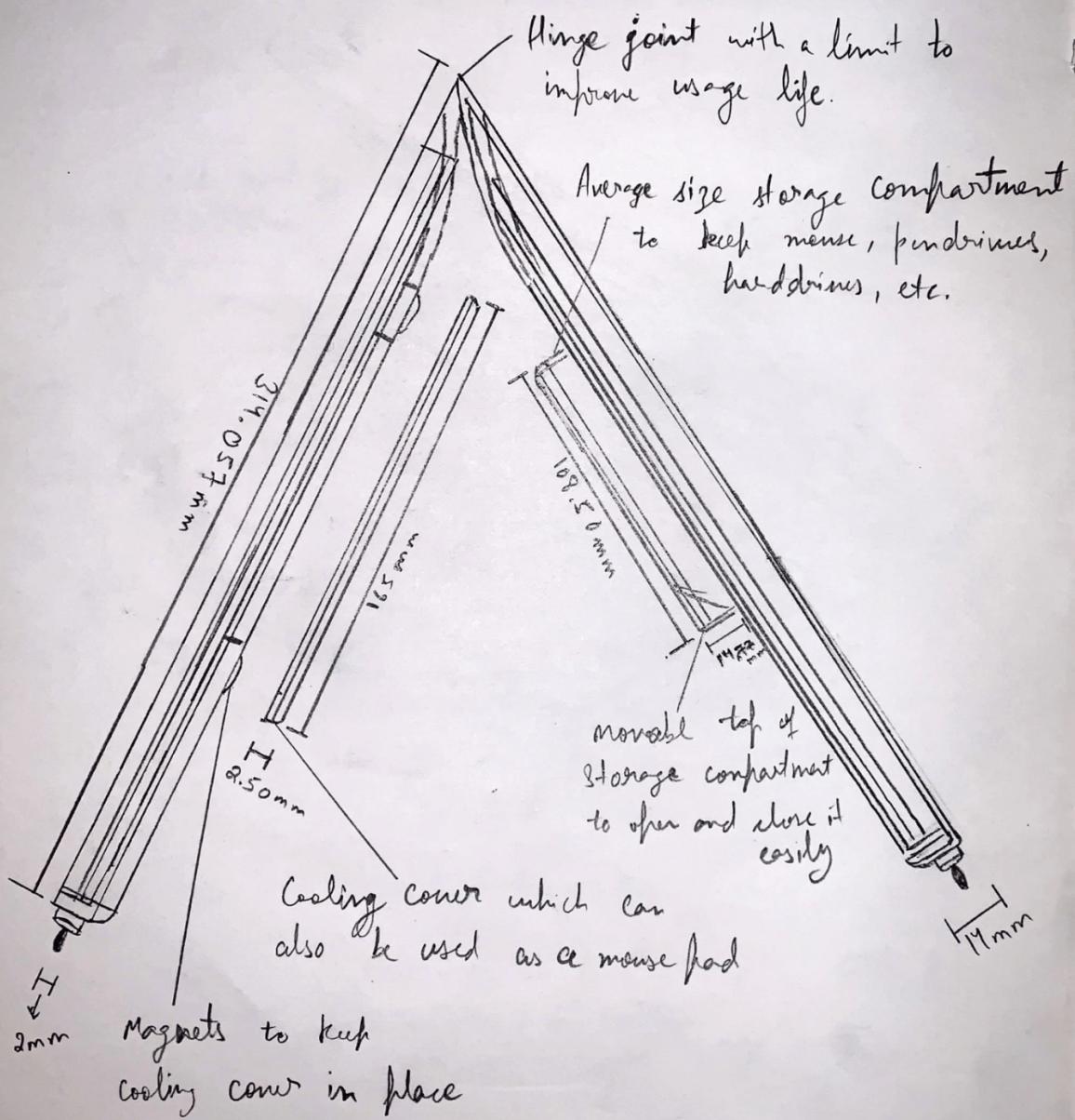


Figure 4: Side View sketch

TOP VIEW

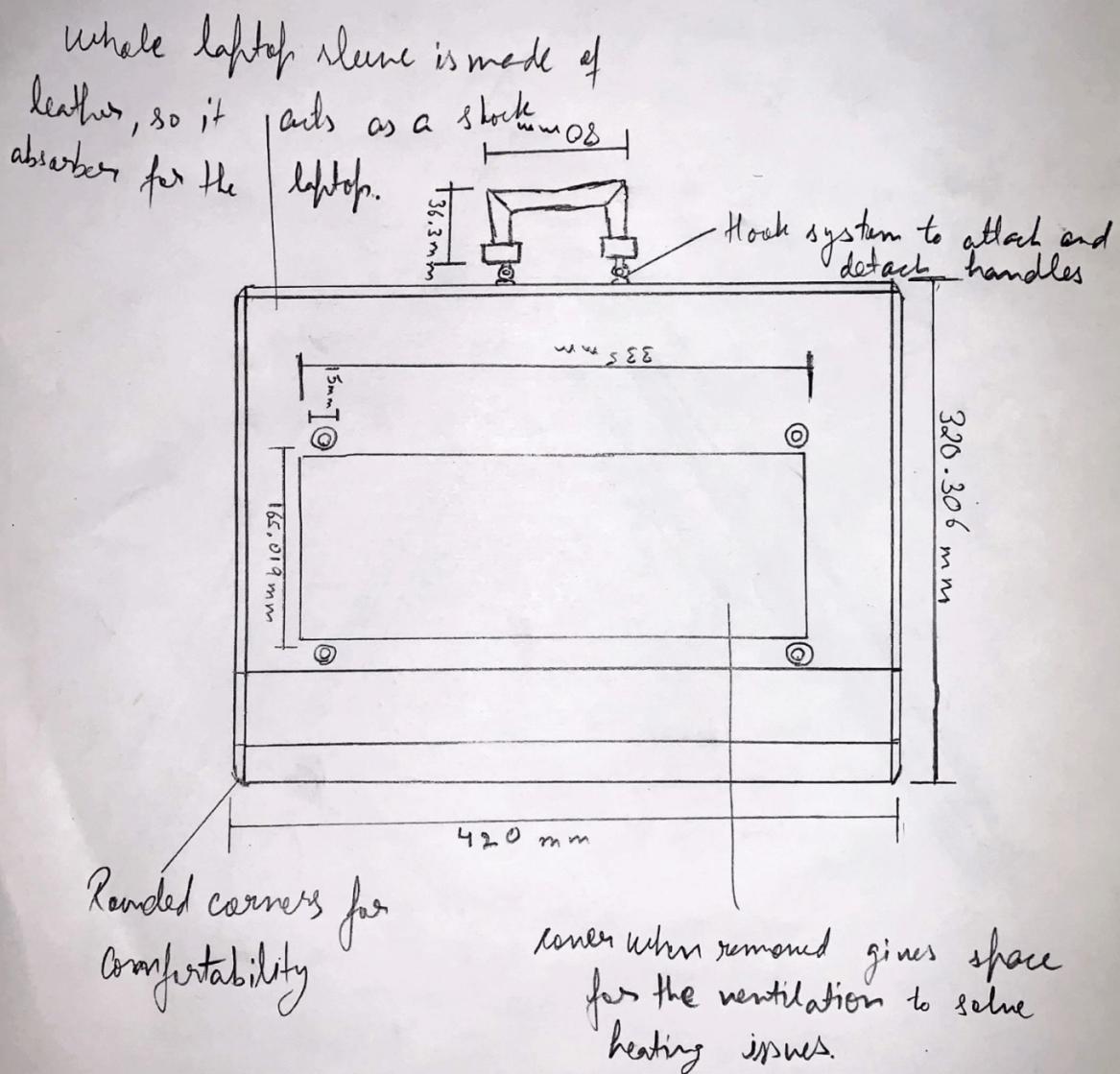


Figure 3: Top View sketch

Task 6: 3D Generated Models

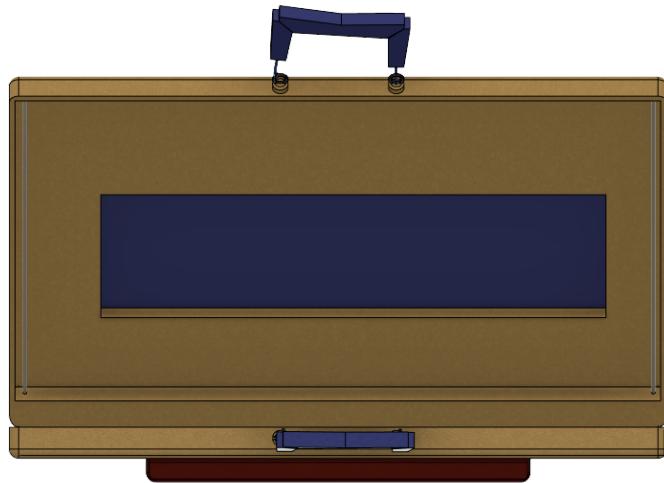


Figure 6: Front View of Assembly

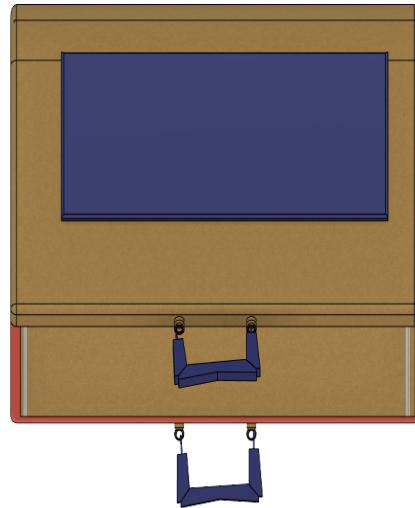


Figure 7: Top View of Assembly

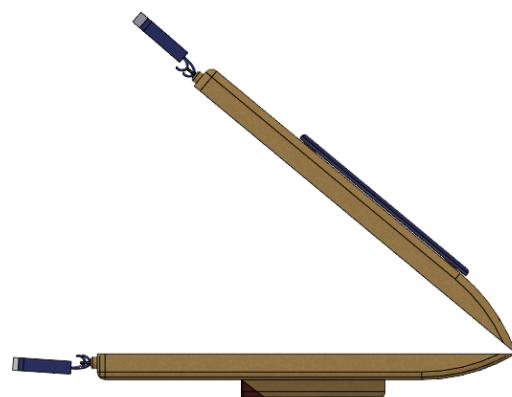


Figure 8: Side View of Assembly

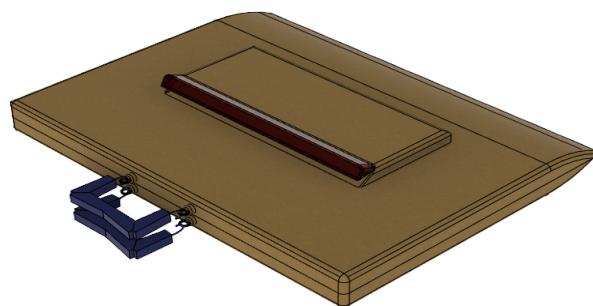


Figure 9: Isometric View of Assembly

Moving joints (if any) were included also within the CAD design file, to simulate the motion of the impeller and the float switch under potential expected conditions.

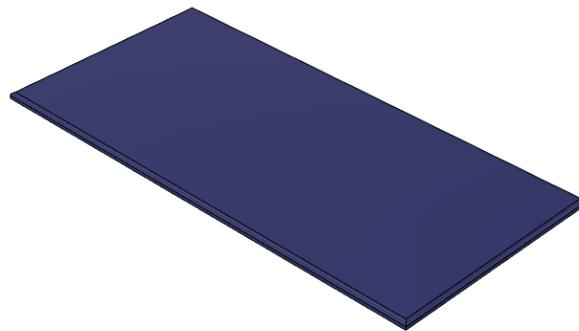


Figure 10: Isometric View of Part 1 (Cooling Cover)

Use of commands:

This component was using basic commands like extrude and fillet.

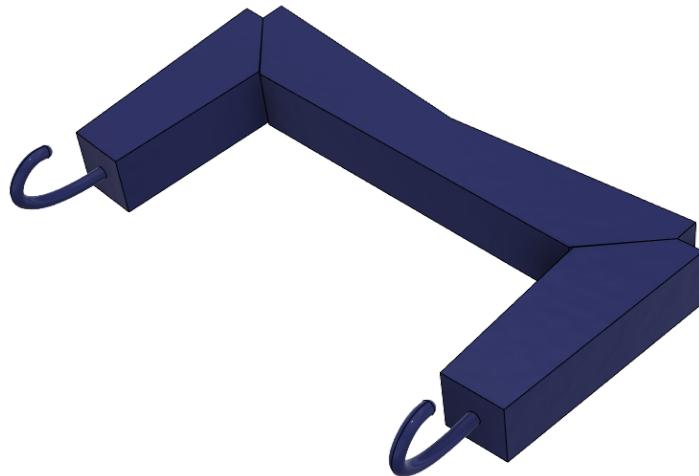


Figure 11: Isometric View of Part 2 (Detachable Handle)

Use of commands:

The designs were made using commands/tools including extrude, sweep, hole, path tracing. The handle used Revolute Joint.

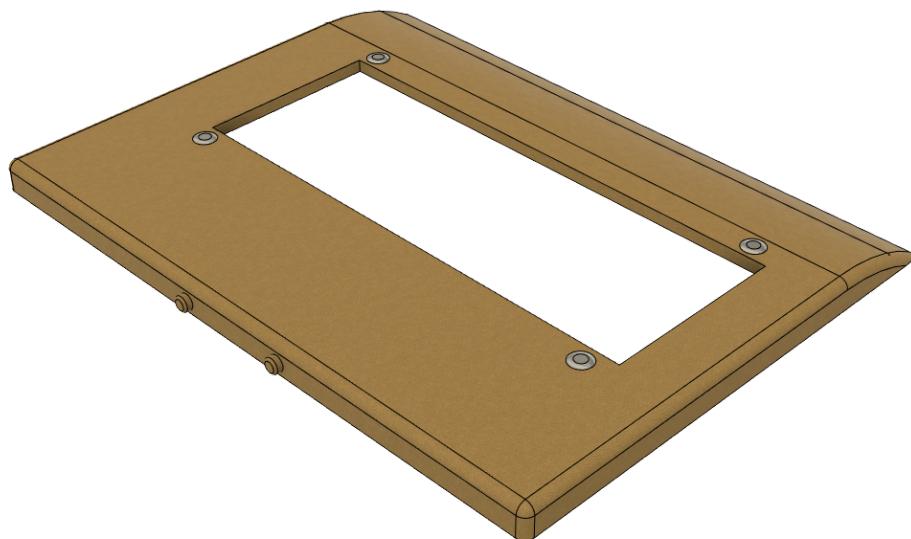


Figure 12: Isometric View of Part 3 (Sleeve Back)

Use of commands:

The designs were made using commands/tools including basic commands like extrude, fillet, and shell.

It also uses a revolute joint.

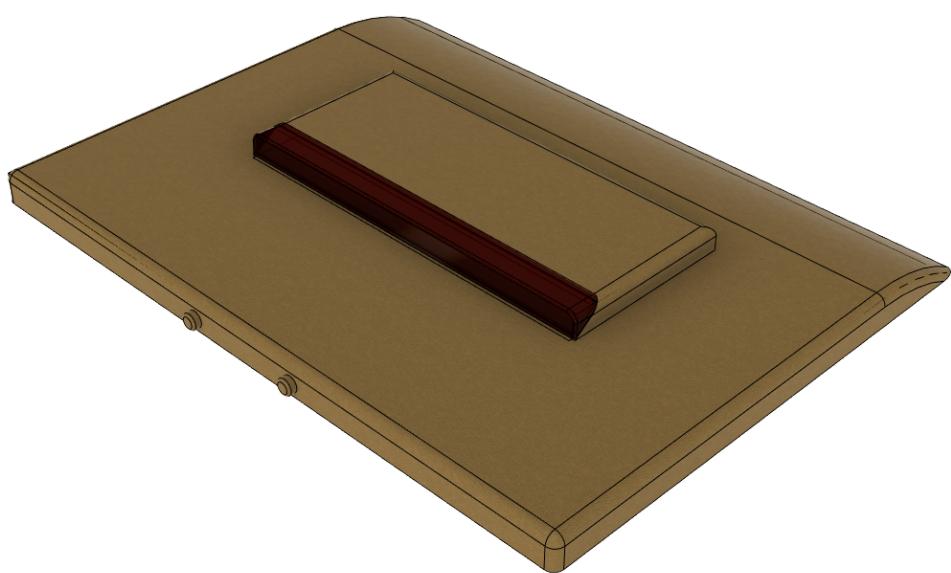


Figure 13: Isometric View of Part 4 (Name of component)

Use of commands:

The design was made using basic commands like shell, fillet, split body, extrude. It also uses a revolute joint.

Task 7: 2D Technical Drawings

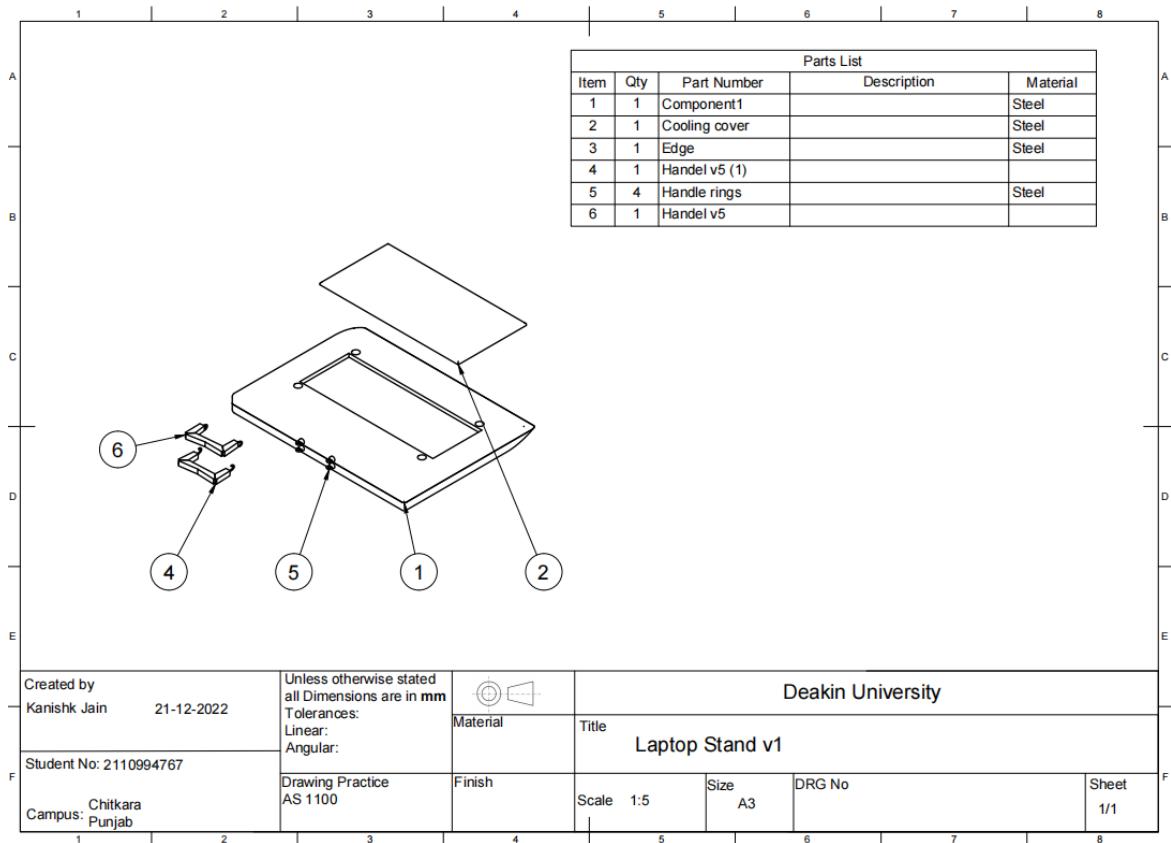
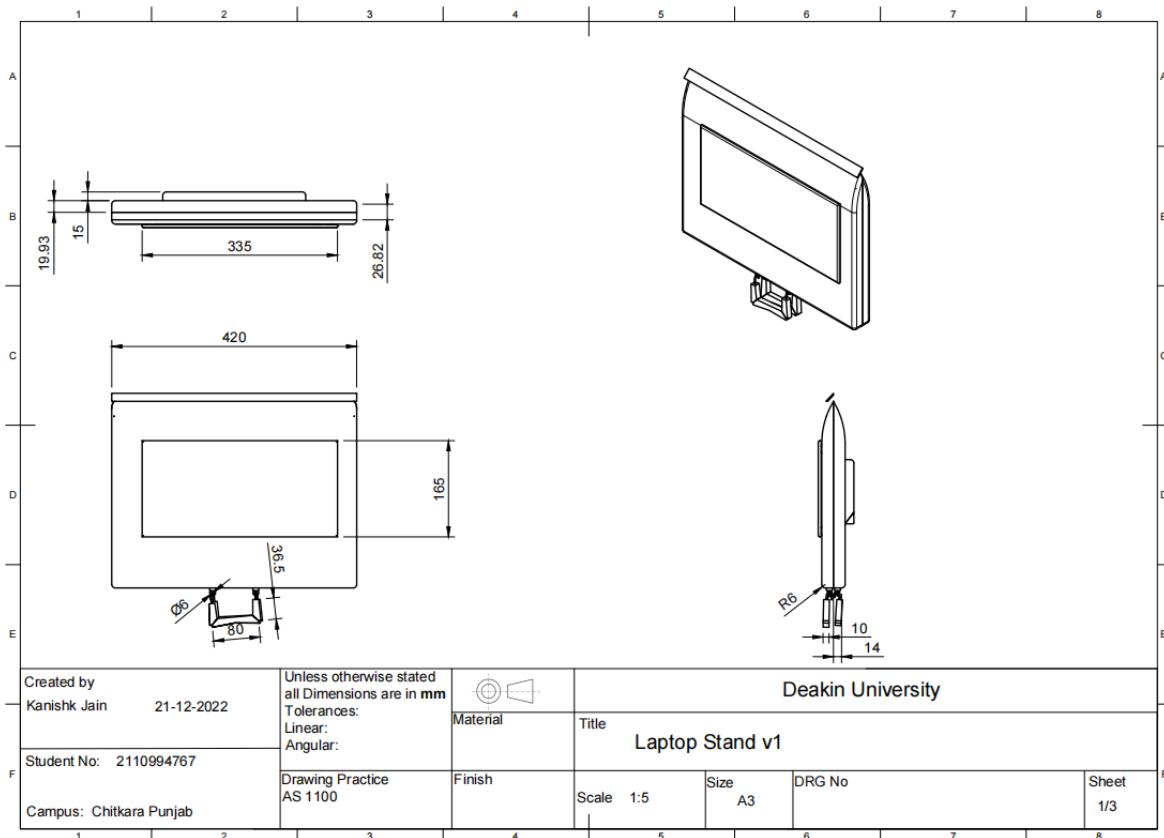


Figure 15A: Drawing of Exploded view of Assembly



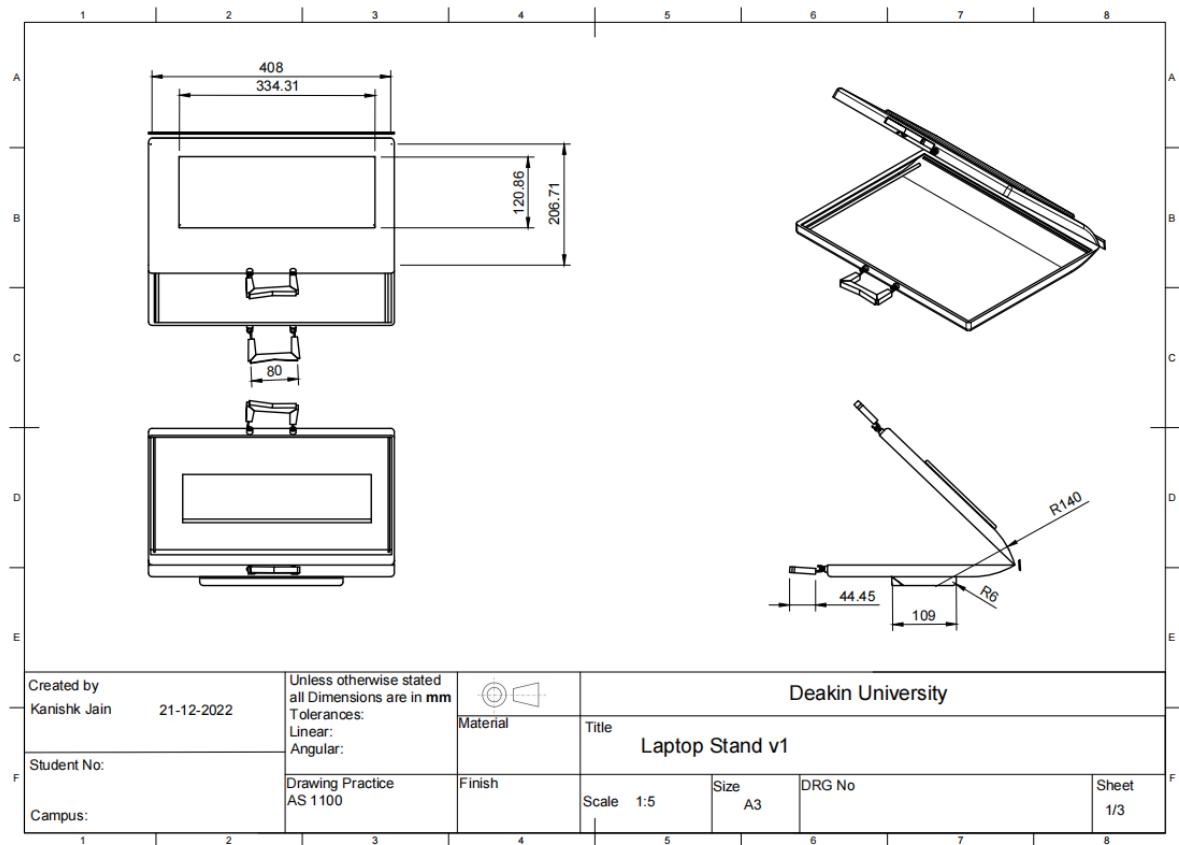


Figure 15B: Drawing of Assembly

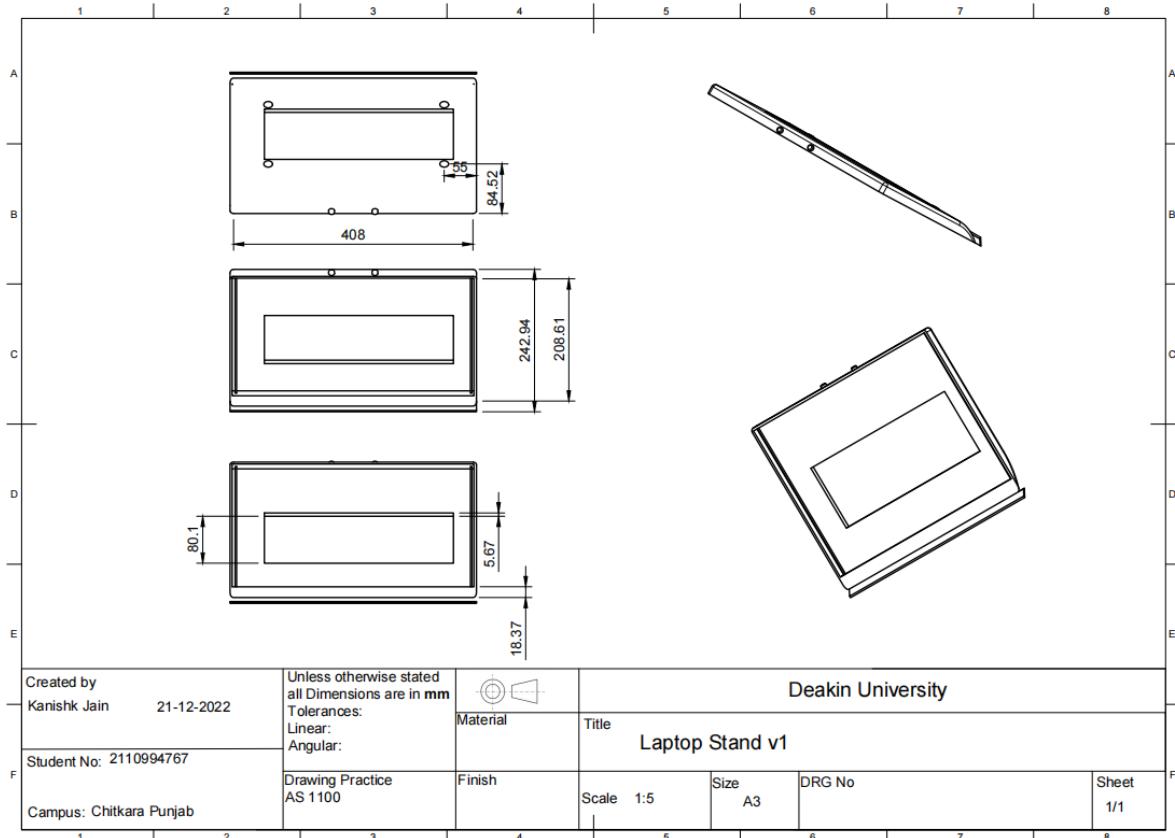


Figure 16: Drawing of Part 1

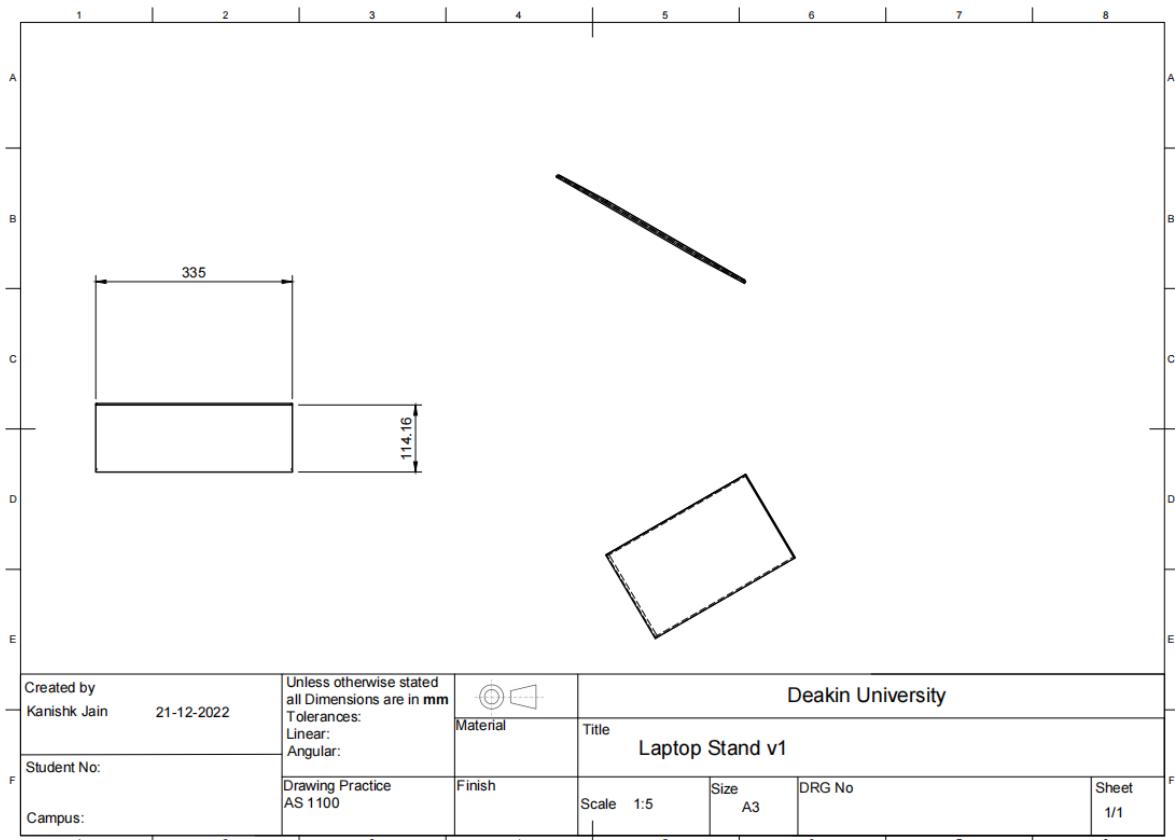


Figure 17: Drawing of Part 2

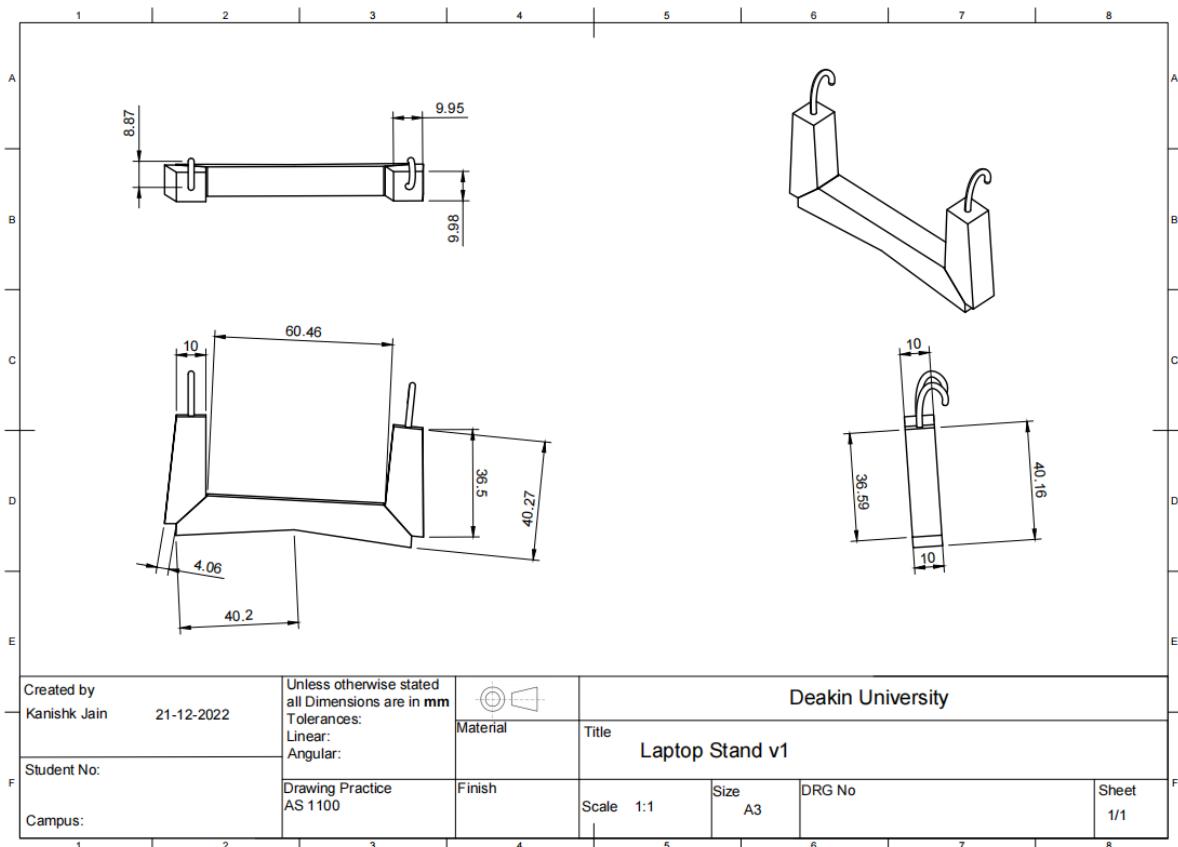


Figure 18: Drawing of Part 3

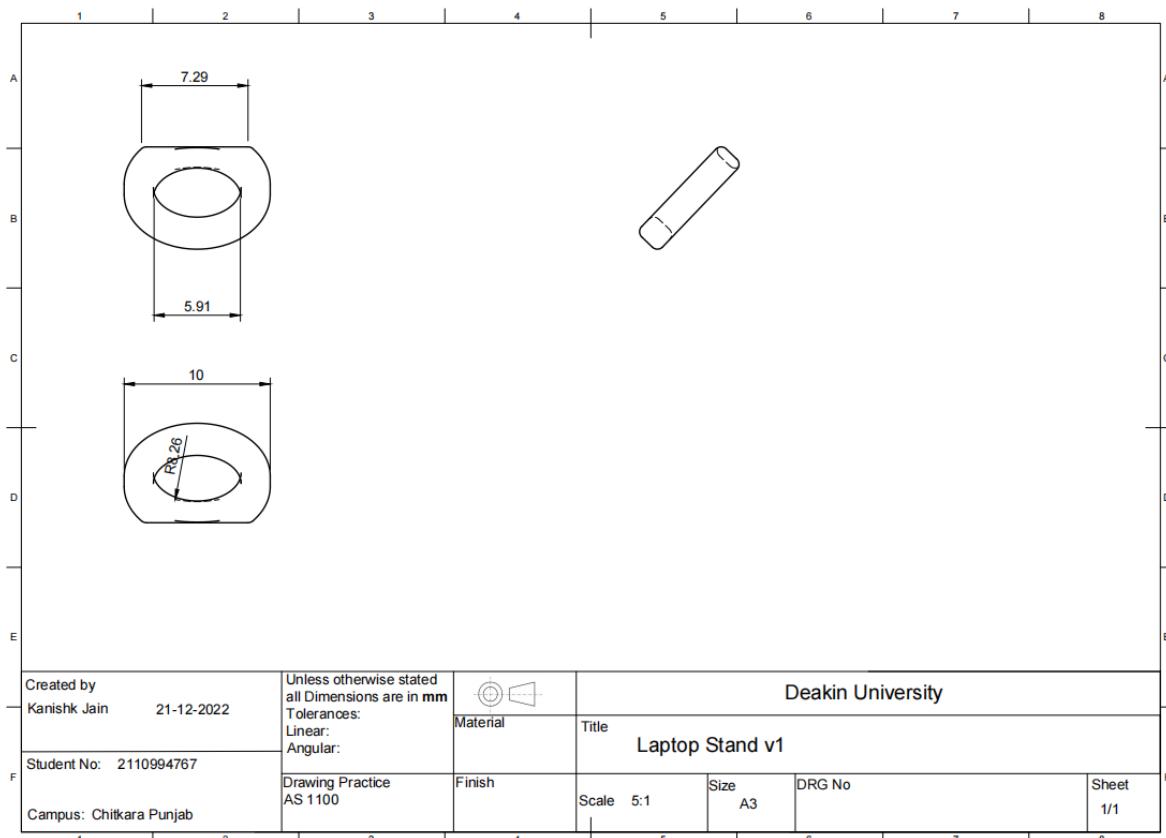


Figure 19: Drawing of Part 4

Task 8: 3D Rendered Images



Figure 21: Situation 1

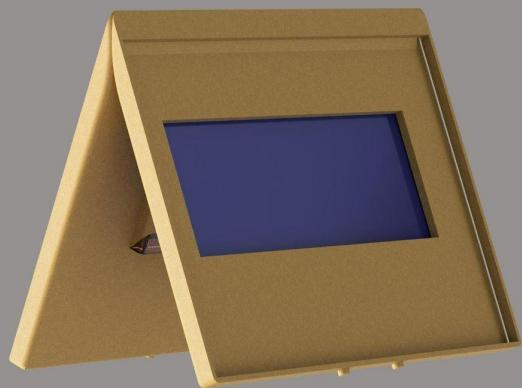


Figure 22: Situation 2

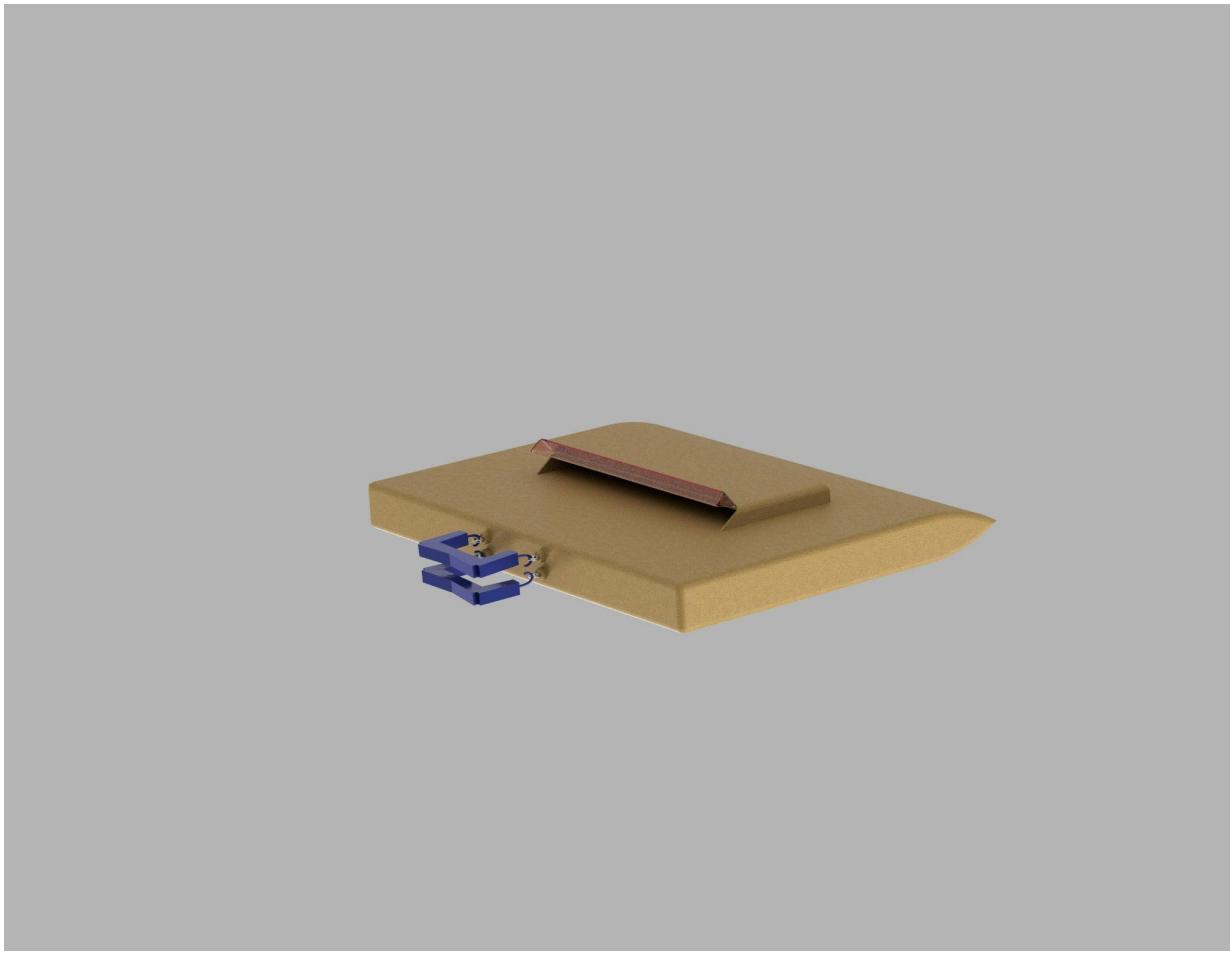


Figure 23: Situation 3

Task 9: Infographic

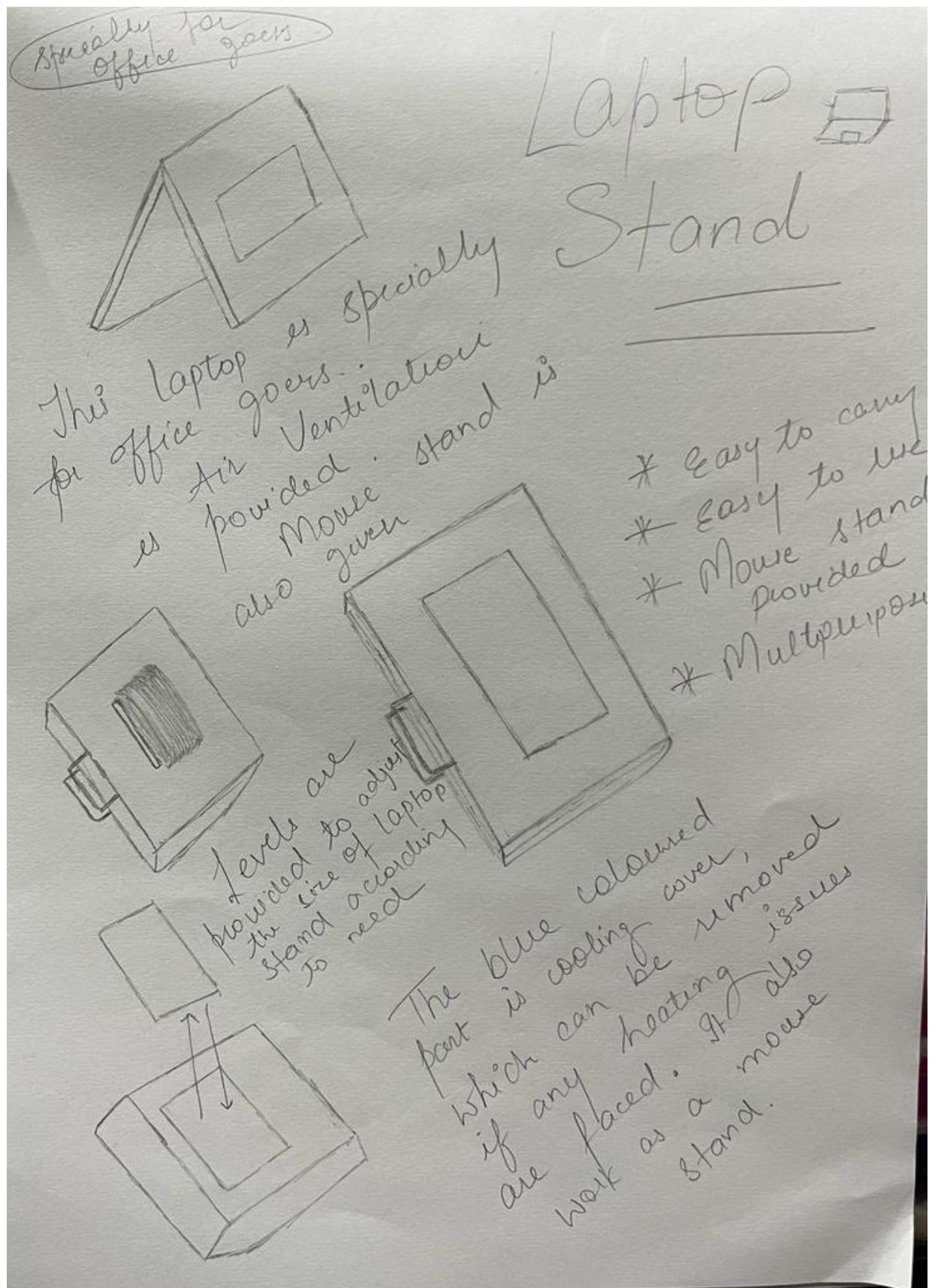


Figure 24: Draft of Infographic ideas

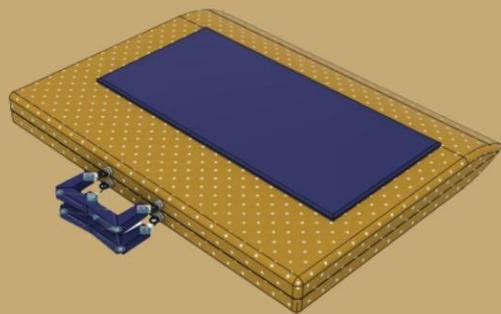
LAPTOP STAND

For office
goers

Levels are provided to adjust
the size of the laptop stand
according to our need

Features:-

- More than one work
- Mouse stand provided
- Easy to use
- Easy to carry
- Adjust size according to need



The blue coloured part is cooling cover, which can be removed if any heating issues are faced. It also works as a mouse stand.



A multipurpose laptop stands adjust itself according to our needs.
Air ventilation is provided.
Mouse stand is also given

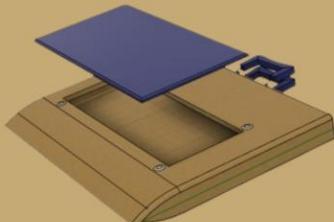


Figure 25: Final infographic